IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Mallis, *et al.*
Serial No.: 09/977, 746
Filed : October 15, 2001
Title : WEDGE THREAD WITH TORQUE SHOULDER

Art Unit : 3679
Examiner : E. Nicholson

Assistant Commissioner for Patents
Washington, DC 20231

REPLY UNDER 37 C.F.R. § 1.111

Dear Sir:

This paper is responsive to the Office Action mailed on January 13, 2003. Please reconsider the application in view of the following remarks. Applicant thanks the Examiner for careful review of the specification and claims.

REMARKS

All claims, claims 1–18, were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,822,081 ("Blose"). This rejection is respectfully traversed because the cited art does not disclose all of the limitations in the claimed invention.

Independent claim 1 recites a pipe connection including a pin member, a box member, and a positive stop torque shoulder. The pin member includes an external thread increasing in width in one direction and having load and stab flanks. The box member includes an internal thread increasing in width in the other direction and having load and stab flanks. The width of the internal and external threads are selected to provide a selected clearance at least between the internal load and stab flanks and the external load and stab flanks upon initial engagement of the positive stop torque shoulder. Claim 10 is an independent method claim with similar limitations.

The present invention enables a portion of the make-up torque to be applied to the positive stop torque shoulder instead of being applied to the wedge threads. This prolongs the life of a connection because it decreases thread wear. The present invention also prevents irreversible plastic deformation of the threads that may occur during make-up.

Blose discloses a connection where the "shoulders and end faces may be allowed to contact before complete thread make-up." Col 10, ll. 13–15. Complete thread make-up describes a condition where a connection has been screwed together until a specific torque is reached. In contrast to the present invention, however, Blose is absolutely silent as to a condition where the load and stab flanks are out of contact. Moreover, the load and stab flanks would not necessarily be out of contact simply because the shoulders and end faces are allowed to contact before complete thread make-up, as noted in Blose.

In addition, claim 1 requires "a selected clearance" between the load and stab flanks when the shoulders contact. Blose is silent with respect to this claimed feature as well. As noted above, by judiciously choosing a selected clearance, the present invention provides a connection with better wear characteristics and prevents plastic deformation of the threads. Blose does not disclose a selected clearance at least between the internal load and stab flanks and the external load and stab flanks upon initial engagement of the positive stop torque shoulder.

Because Blose does not disclose all of the recited limitations, independent claims 1 and 10 are allowable over the cited art. Dependent claims 2–9 and 11–18 are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

CONCLUSION

Applicant believes this reply to be responsive to all outstanding issues and place this application in condition for allowance. If this belief is incorrect, or other issues arise, do not hesitate to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 09432/183002).

Respectfully submitted,

Date: 4/10/03

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